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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/489,286	01/21/2000	David A. Cathey	2269-7129.2US	5649

63162 7590 08/27/2007  
TRASK BRITT, P.C./ MICRON TECHNOLOGY  
P.O. BOX 2550  
SALT LAKE CITY, UT 84110

EXAMINER
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PATEL, ASHOK

ART UNIT	PAPER NUMBER
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2879

MAIL DATE	DELIVERY MODE
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08/27/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary**

Application No.

09/489,286

Applicant(s)

CATHEY ET AL.

Examiner

Ashok Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 29-48 is/are pending in the application.
- 4a) Of the above claim(s) 29-32 and 40-48 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 33-39 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 January 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12142004</u>  | 6) <input type="checkbox"/> Other: _____                          |

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1. Applicant's election without traverse of Group II, claims 33-39 in the reply filed on 07/25/2007 is acknowledged. Claims 29-32 and 40-48 are withdrawn from consideration. Action on merit including claims 33-39 is as follows.

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 33-39 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-7 of U.S. Patent No. 6,057,638. Although the

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conflicting claims are not identical, they are not patentably distinct from each other because U.S. Patent 6,057,638 recites applicant's claimed field emission device including: anode, cathode and a plurality of emitters as mentioned below:

Instant U.S. Patent Application 09/489,286	U.S. Patent 6,057,638
33. A field emission display comprising: an anode; a cathode; the anode and the cathode sealed together and spaced apart to define an evacuated space therebetween; and a plurality of electron emitters protruding from a surface of the cathode, each of the emitters having tips for emitting electrons to the anode, the emitters comprising silicon and having an electropositive element throughout a body of the emitters and at a surface thereof.	1: A field emission display comprising: an anode; a cathode; the anode and the cathode sealed together and spaced apart to define an evacuated space therebetween; and a plurality of electron emitters protruding from a surface of the cathode, each of the emitters having tips for emitting electrons to the anode, the emitters comprising silicon and having an electropositive element throughout a body of the emitters and at a surface thereof.
34. The field emission display of claim 33, wherein the electropositive element is substantially evenly, distributed throughout the body of the emitters.	2. The field emission display, wherein the electropositive element is substantially evenly, distributed throughout the body of the emitters.
35. The field emission display of claim 33, wherein the electropositive element is an element selected from the group consisting of Group IA of the periodic table.	1, 3. The field emission display, wherein the electropositive element is an element selected from the group consisting of Group IA of the periodic table.
36. The field emission display of claim 33, wherein the electropositive element comprises Cs.	4. The field emission display, wherein the electropositive element comprises Cs.

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37. The field emission display of claim 33, wherein the electropositive element is an element selected from the group consisting of H, Li, Be, B, Na, Mg, At, Ga, Ba, Rb, Ca, K, Sr, and in.	5. The field emission display of claim 33, wherein the electropositive element is an element selected from the group consisting of H, Li, Be, B, Na, Mg, At, Ga, Ba, Rb, Ca, K, Sr, and in.
38. The field emission display of claim 33, wherein the electropositive element is an element selected from the group consisting Group IIA of the periodic table.	1, 6. A-The field emission display, wherein the electropositive element is an element selected from the group consisting Group IIA of the periodic table.
39. The field emission display of claim 33, wherein the electropositive element is an element selected from the group consisting of Group IIIA of the periodic table.	1, 7. The field emission display, wherein the electropositive element is an element selected from the group consisting of Group IIIA of the periodic table.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Itoh et al, Roe et al, Cathey and MaCaulay et al each are cited for a general structure of a field emission device.

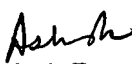
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashok Patel whose telephone number is 571-272-2456. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be

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obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Ashok Patel  
Primary Examiner  
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